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Celebrating 20 years of the National Biodiversity Data Centre



An tIonad Náisiúnta Sonraí Bithéagsúlachta
National Biodiversity Data Centre

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Message from the Chief Executive Officer



I write this comment piece while attending the 17th Conference of the Parties (COP17) to the Convention on Biological Diversity in Yerevan, Armenia. This is the first COP I attended, with a joint role - as part of the Irish delegation but also representing the Centre as Ireland's Node of the Global Biodiversity Information Facility (GBIF). Over the two-week event, as many as 15,000 participants will have attended, comprising scientists, government officials, representatives of international organisations, businesses, indigenous communities and media. The COP is the two-yearly meeting where the 196 parties to the convention, 195 states and the European Union assemble to review progress with delivery of the Convention and to consider possible future directions. The primary focus of COP17 is evaluating and accelerating the mid-point implementation of the Kunming-Montreal Global Biodiversity Framework and its 23 targets, under the theme 'Taking Action for Nature'. This is set against a background where the recently published State of Biodiversity Action report provides a sobering assessment of the scale of the task that remains if the Convention on Biological Diversity is to deliver on the ambitions outlined in the Kunming-Montreal Global Biodiversity Framework. COP17 is particularly important for Ireland.

Having the EU Presidency means that Irish officials are leading the negotiations on behalf of the EU, and their professionalism and commitment at the event are doing us all proud.

COP17 has been a huge learning experience for me, but as I reflect on the event, I think there are two key take -home messages. First, in the midst of all the stifling processes and tortuous negotiations, there is a huge cohort of extremely knowledgeable, professional and committed people all deeply frustrated by the inability to increase the scale and pace of global action to address biodiversity loss. Tackling the obstacles and constraints to delivering more effective actions remains a challenge at global, national and local levels.

Second, one of the key messages of the State of Biodiversity Action report relates to improving the availability of data and knowledge for decision-making. Delegates consistently referred to challenges of data availability and access, data fragmentation across institutions and platforms, insufficient technical and technological infrastructure, insufficient institutional coordination and data governance, and the need to invest in monitoring systems and to build capacity. We are fortunate that the Government of Ireland has secured the long-term future of the National Biodiversity Data Centre, has given it a strong mandate, and continues to invest in its work, creating the conditions where Ireland can address this challenge.

I return to Ireland with a renewed energy to redouble efforts to engage with all our partners to deliver more coordinated and collaborative data-sharing systems, stressing the strategic value of shared efforts to improve access and availability to more and better-quality biodiversity data. This would be one very tangible achievement Ireland could report, when reporting on delivery of the Kunming-Montreal Global Biodiversity Framework in 2030.

– **Dr Liam Lysaght**

An tIonad Náisiúnta Sonraí Bithéagsúlachta
National Biodiversity Data Centre

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Dave Wall
Marine Biodiversity Programme Manager

2026 Distinguished Biodiversity Recorder Award

Michael O'Donnell, of MothsIreland, received the National Biodiversity Data Centre's Distinguished Recorder Award 2026, for his outstanding contribution to biological recording, at a small ceremony in Wicklow on August 12th.

In 2002, Michael was accidentally introduced to moth recording while attending a Dragonfly Ireland identification course. As the weather was not conducive to dragonfly recording, one of the course leaders put out a moth trap. This revealed the wonders of moth trapping and Michael was hooked! Two weeks later, he had his own moth trap. Over the following 24 years, he has become one of the country's most active moth recorders, having recorded over 50,000 moths of more than 800 species, a remarkable achievement.

Since 2018, Michael managed the MothsIreland database, processing 1.2 million records and adding them to the dataset, which currently holds almost 1.7 million records. Michael personally validated about 400,000 records!



Michael O'Donnell receiving his award from Dr Liam Lysaght

Speaking at the award ceremony, Dr Liam Lysaght, CEO of the National Biodiversity Data Centre, said: "MothsIreland is a fantastic example of how groups and volunteers can contribute to our knowledge of Ireland's biodiversity. Thanks to their systematic recording, Ireland now has a huge database on the distribution of moth species, and moths are now one of the best recorded taxonomic groups in Ireland. These data can now feed into Atlases and Red Lists, providing tangible evidence to inform policy that will lead to conservation action.

"We are really dependent on the goodwill of groups and volunteers who publish their data through the National Biodiversity Data Centre. Thanks to Michael, and the successful collaboration between MothsIreland and the National Biodiversity Data Centre, our knowledge of Irish moths has increased tremendously. We are extremely grateful to Michael O'Donnell who has been so willing to share his expertise, his time and his passion for biodiversity."



Dr Ferdia Marnell, National Parks and Wildlife Service; Dr Tim Butter, National Biodiversity Data Centre; Michael O'Donnell, 2026 Distinguished Recorder Award recipient; Dr Liam Lysaght, National Biodiversity Data Centre; Dr Úna FitzPatrick, National Biodiversity Data Centre; and Oisín Duffy, National Biodiversity Data Centre.

Taking Ireland's biodiversity data global

The National Biodiversity Data Centre and the National Parks and Wildlife Service recently attended the 33rd meeting of the Governing Board of the Global Biodiversity Information Facility (GBIF) in Oslo. GBIF is the international biodiversity data infrastructure and network, funded by the world's governments and aimed at providing anyone, anywhere, with open access to data about all types of life on Earth. The National Biodiversity Data Centre serves as Ireland's National Node to GBIF, and has, to date, published 5.1 million biodiversity records from Ireland on this international data portal.

The Norway meeting was significant as it celebrated 25 years of GBIF and saw Liam Lysaght, CEO of the National Biodiversity Data Centre, finish his term as Chair of the Governing Board of GBIF, having served in that role for four years.



Gemma Weir, Ecological Data Manager, National Parks and Wildlife Service, and Ireland's Head of Delegation GBIF; Dr Liam Lysaght, outgoing Chair GBIF and CEO of the National Biodiversity Data Centre; and Dr Michelle Judge, Ireland's GBIF Node Manager, and Data Manager, National Biodiversity Data Centre.

Celebrating 20 years of Citizen Science



Over the past 20 years, the Centre has engaged with a network of over 30,000 recorders who have generated a huge amount of high-quality data on over 14,000 species. Indeed, much of the success of the Centre is a result of the support and goodwill received from these recorders over the years. To acknowledge this wonderful contribution, the country's most prolific recorders were invited to a special celebratory event, held in June in Killarney National Park, and hosted by the National Parks and Wildlife Service. The weekend included a series of expert-led workshops and walks, as well as an award ceremony for 'Champion Recorders', Rachel McKenna, Hugh Shepherd, Jamie O'Neill, Louise Garcia, and Valerie Pedlow.





The Explore your Shore! workshop at Fenit beach, Co. Kerry

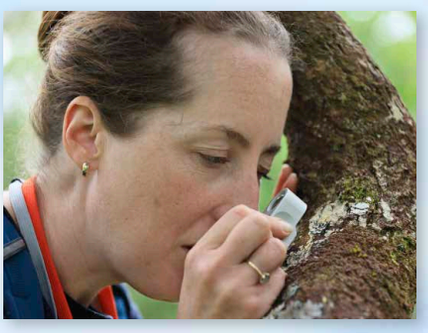




Rachel McKenna submitted over 10,000 records of 2,785 different species in the past five years alone.



Liam Lysaght presenting Hugh Shepherd with his Champion Recorder Award. In the past five years, Hugh submitted almost 13,000 records of 1,650 species.

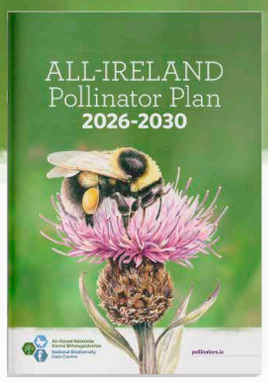


Jean Hamilton © Valerie O'Sullivan/NPWS

Centre staff at the Killarney event



The Plan for POLLINATORS 2026-2030





Unfortunately, pollinators are in difficulties. We know this thanks to data collated and managed by the National Biodiversity Data Centre. We have over 100 wild bee species on our island, with one-third threatened with extinction. Data from the Centre's citizen science bumblebee and butterfly monitoring schemes show that many species are declining in abundance. These declines are largely due to the loss of the habitats that provide insects with food and shelter; with pests and diseases, pesticide use and climate change also playing a role. Pollinating insects are essential for the health of our environment and the success of industries such as agriculture. They are worth millions to our economy and help pollinate many fruits and vegetables we grow at home.

The All-Ireland Pollinator Plan was established in 2015 to tackle pollinator declines, becoming one of the first of its kind in Europe. It is a voluntary framework bringing together different sectors across the island to create a landscape where pollinators can survive and thrive. The Plan is managed by the National Biodiversity Data Centre, and it has an island-wide steering group who provide oversight.

The Pollinator Plan has achieved widespread support from governmental and non-governmental organisations. It is an example of effective North-South cooperation, with both jurisdictions coming together to work within a common framework. The first Plan (2015-2020) delivered 81 actions, and the second Plan (2021-2025) built on the success of the first phase to deliver 186 actions.

From the beginning, a core ethos of the Pollinator Plan has been to explain what wild pollinators need, and what simple, evidence-based actions everyone across society can take to help. These are all freely available at pollinators.ie. Support has grown across all sectors, from farmers to gardeners, councils to businesses, community groups to schools, sports clubs, faith communities, and individuals. All 42 councils on the island have voluntarily agreed to take actions for pollinators on public land. Transport authorities have made changes to our road, rail and waterway networks to better support pollinators. Farmers have embraced pollinator-friendly activities, such as maintaining flowering hedgerows, meadows and reducing pesticide use. Hundreds of communities have transformed their local areas. Schools, sports clubs, healthcare sites and churches are all managing land for nature. Over 400 companies have joined the business supporters' network and agreed to help on their own site or through their governance, communication or sponsorship activities. A small fraction of the many thousands of positive actions taken are captured in a booklet released to celebrate the second phase: *One Hundred Tales of Hope: Stories of pollinator conservation from the All-Ireland Pollinator Plan 2021-2025*.

Despite the high level of support, the most important question remains: is the Plan working? While it is still early on the journey, there are positive signs. Where communities come together to help rare bees by returning habitats to their local area, we can see positive changes relatively quickly. The general trend within the Bumblebee Monitoring Scheme shows that declines appear to have stabilised over the last five years. However, many pollinators are still in difficulty. We need to implement more actions, and we need to join those actions up better.

Lessons learned and new initiatives for 2026-2030

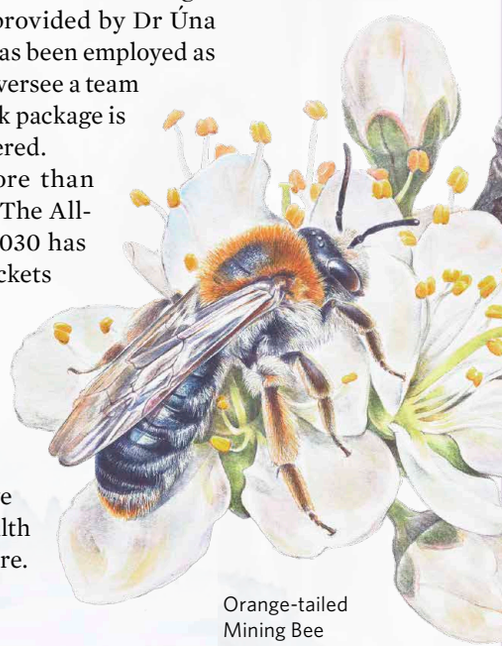
We are delighted to launch a new All-Ireland Pollinator Plan for 2026-2030. Thanks to funding from the Government of Ireland Shared Island fund, the National Parks and Wildlife Service, the Department of Agriculture, Food and the Marine, and the Northern Ireland Environment Agency, the third phase is the most ambitious yet, and will be supported by a larger team in the National Biodiversity Data Centre.

In response to consultations with partners and the public, the new Plan has a more agile structure to increase flexibility and give key areas room to grow. It also facilitates greater knowledge exchange and peer-to-peer learning. It builds on all the lessons of the first two phases and identifies 50 aims across 10 work packages. Progress will be tracked through 75 success metrics.

The Pollinator Plan is voluntary, and we are delighted that 32 new partner organisations have agreed to support the next phase, bringing the total to 131. In addition to supporting their relevant work package, partner organisations have also collectively agreed to over 280 individual actions for 2026-2030.

A huge strength of the Pollinator Plan is its direct link to data through the National Biodiversity Data Centre and to research through the Irish Pollinator Research Network. Data will remain central to the third phase – species data to understand the status of pollinators; monitoring data to track changes and the impact of the evidence-based actions; GIS data to map individual actions and show changes in the landscape; and success metrics to show progress with the Plan itself. We are delighted that the 2026-2030 phase will be supported by a team of eight dedicated staff within the National Biodiversity Data Centre. Strategic oversight will continue to be provided by Dr Úna FitzPatrick. Dr Sarah Larragy has been employed as Programme Manager and will oversee a team of seven to ensure that each work package is effectively supported and delivered.

A solitary bee won't fly more than about 200 metres to find food. The All-Ireland Pollinator Plan 2026-2030 has a wildly ambitious vision of pockets of nature every 200 metres in our landscape, providing food, shelter, and safety for pollinators. We want to help bring about an island that supports biodiversity, is climate resilient, and is a place where we can all experience the joy and health benefits of connecting with nature.



Orange-tailed Mining Bee



The 2026-2030 phase of the Pollinator Plan is supported through funding from the Government of Ireland's Shared Island Fund, the National Parks and Wildlife Service, the Department of Agriculture, Food and the Marine, and the Northern Ireland Environment Agency.
Pictured: John Conlon, Chairman, OPW; Dr Claire Cooper, Assistant Principal, National Parks and Wildlife Service and National Biodiversity Data Centre Board Member; Dr Úna FitzPatrick, Co-founder of the All-Ireland Pollinator Plan and Chief Scientific Officer of the National Biodiversity Data Centre; Minister for Nature, Heritage and Biodiversity, Christopher O'Sullivan TD; Sara McGuckian, Head of Natural Science, Northern Ireland Environment Agency; Minister for Agriculture, Environment and Rural Affairs, Northern Ireland, Andrew Muir; Virginia Teehan, CEO, The Heritage Council; Michelle Corrigan, Principal Officer, Department of Agriculture, Food and the Marine; and Richard Tilson, Chief Operating Officer, National Biodiversity Data Centre. Photo Dermot Byrne

To achieve this, we will work across the following 10 areas:

Protecting Farmland Pollinators

In the second phase, we developed an evidence-based Farmland Pollinator Tool in collaboration with farmers. Depending on the management actions that farmers are taking, it scores their farm out of 100, with a score of 50 indicating that a farm supports pollinators, and 70 indicating that it is pollinator-friendly. In the next phase, we want to encourage as many farmers as possible to score their farms and support those who want to improve their score. This work package is supported by the Department of Agriculture, Food and the Marine, which has provided funding for two Farmland Pollinator Officers (Patrick Doran and Pat Fitzmaurice).

Local Authorities and Public Bodies – making public land pollinator-friendly

All 42 councils across the island have endorsed the Plan and committed to taking actions. Greater capacity within the team means that they can be better supported; there can be more peer-to-peer knowledge exchange; and new public bodies can be targeted. This work package is supported by the Government of Ireland Shared Island initiative, which has provided funding for a dedicated Pollinator Officer (Dr Emma King).

Transport Authorities and Utility Companies – creating pollinator corridors across the landscape

For the first time, transport authorities and utility companies will be brought together to work collaboratively to establish connections between their respective networks and to create new corridors for pollinators in the landscape. The Pollinator Plan team will work to support partners within this work package.

Creating Buzzing Communities

From gardens to schools, local communities, faith communities, and sports clubs, we want to continue supporting the amazing local pollinator champions who are working to help achieve our vision of connected networks of nature-friendly habitat across communities. This work package is supported by the National Parks and Wildlife Service, which has provided funding for a Communities Pollinator Officer (Kate Chandler).

Encouraging Businesses to Protect Pollinators

We want to greatly increase the number of companies who take evidence-based action for pollinators on their sites, and through their governance, communication, or sponsorship activities. This work package is supported by a dedicated Business Pollinator Officer, funded by the National Biodiversity Data Centre (Sarah Kelly).

Pollinators on the Edge – restoring rare species

For the first time, those threatened species most at risk of extinction will be monitored each year, and hotspot mapping will be used to direct action to areas where it is most needed. We will also do more to raise awareness of rare bees, hoverflies and moths, and the habitats they need to survive. This work package is supported by the Government of Ireland Shared Island initiative, which has provided funding for a Rare Species Pollinator Officer (Josh Clarke).



Ashy Mining Bee



The All-Ireland Pollinator Plan team from the National Biodiversity Data Centre, Dr Jon Ryder, Dr Emma King, Joshua Clarke, Kate Chandler, Dr Úna FitzPatrick, Sarah Larragy, Sarah Kelly, Pat Fitzmaurice and Patrick Doran.

Mapping Pollinator Action across All Sectors

In early 2027, the National Biodiversity Data Centre will launch a new GIS-based mapping system to track site-based actions across sectors. Where your site is within 200 metres of another site providing food or shelter, it will automatically add a visual corridor, helping us work together towards the goal of pockets of nature across the entire landscape.

Monitoring the Status of Pollinators

It's essential that we track changes in populations of wild bees, hoverflies, and moths, using scientifically rigorous methods to understand if the Plan is working. Monitoring to underpin the AIPP happens independently within the National Biodiversity Data Centre through the EU Pollinator Monitoring Scheme, which is required under the Nature Restoration Regulation (project-funded through the Strategic Nature Supports Ireland project and managed by the National Biodiversity Data Centre). Thanks to Shared Island funding, this methodology will be extended across 15 sites in Northern Ireland, generating data on an island-wide scale (Research Assistant: Dr Jon Ryder). This more formal monitoring will continue to be supplemented by citizen science schemes, and we pay tribute to the amazing volunteers who take part in those schemes within the NBDC and help us track change.

Research – ensuring evidence-based action for pollinators

The Irish Pollinator Research Network will establish dialogues between researchers, practitioners and partners in each work package, enabling stakeholders to learn about current research and identify future gaps that require attention. When research is completed, the key findings will be communicated in accessible language to those who can use this information to further pollinator conservation.

Raising Awareness of Pollinators and Inspiring Collective Action

The website pollinators.ie will remain a central hub for information. All existing resources will be reviewed and updated where necessary, with emphasis placed on ensuring the recommended evidence-based actions are future-proofed, given our changing climate. New campaigns will be established to increase public engagement and to better share the benefits of pollinator action for biodiversity, climate, and human health and wellbeing. We will also freely share our resources with other initiatives internationally so that others can learn from our experiences here.



By working together, we can create a brighter future for pollinators and for ourselves.

Speaking at the launch of the All-Ireland Pollinator Plan 2026-2030, Dr Úna FitzPatrick, Co-Founder of the All-Ireland Pollinator Plan and Chief Scientific Officer of the National Biodiversity Data Centre.



Great Yellow Bumblebee

Illustrations by Shevaun Doherty

Together we can make a difference

Much remains to be done, but we have made a positive start. Often, helping nature calls on us to manage land differently, sometimes in the face of local opposition. The organisations and individuals who have implemented changes across the island are the ones who deserve all the credit. It has shown that people do care and that we can come together to make changes for the better. We thank those who have cut grass less often to allow meadows to return, and those who have cut hedgerows less often to allow them to flower. Thanks to those who have sprayed less, who have planted native trees or orchards, and to those who have chosen pollen- and nectar-rich ornamental plants for flower beds in gardens and parks. Thanks to those who have counted bees, butterflies or moths and helped us track change.

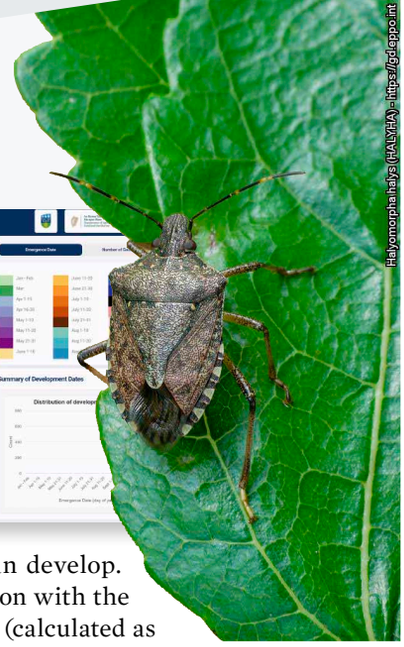
We know what we need to do. Across the island, the seeds of change have been planted, but they need to be nurtured and protected, and we need to plant many more. The All-Ireland Pollinator Plan is a call to action. Imagine an island with pockets of nature every 200 metres. By working together, we can create a brighter future for pollinators and for ourselves.

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture Food and the Marine

A new tool for estimating insect phenology



Halyomorpha halys (R-EPPO) on the Irish Pest Emergence Maps tool



The Pest Risk Analysis Unit (PRAU) in the Department of Agriculture, Food and the Marine (DAFM) has explored several ways to improve surveillance efficiency and accuracy in the detection of quarantine plant pests. Determining the most appropriate time of the year to conduct surveillance for specific species is plagued by uncertainty. One approach is to base surveillance on the known timing of life-cycle events in regions of the world where a quarantine plant pest occurs. This will only work if there are regions with a similar climate to Ireland. Unfortunately, this just isn't the case for many quarantine plant pests. Determining the most appropriate time of the year to visually inspect for these pest life-cycle stages is not always clear.

To date, the PRAU has proposed surveillance dates based on the scientific literature and expert judgement. To improve this approach, the PRAU, in collaboration with Met Éireann, proposed a research topic for DAFM's 2022 Policy and Strategic Studies Research Call (PSSRC) to produce an online open-access model that could predict the timing of species' life cycles (phenology) in the Irish climate. The topic was taken up by the Ecological Modelling Group at University College Dublin (led by Dr Jon Yearsley in collaboration with Dr Paul Brett), who developed the Irish Pest Emergence Maps (IPEM) tool. This tool was developed in collaboration with Met Éireann and the UK Met Office, and assesses how many days an organism will take to complete its life cycle in Ireland based on Met Éireann's historical air temperature data (1991-2024) for the Republic of Ireland and future climate projections (RCP 2.6; 4.5; 8.5 for 2021-2050 and 2041-2070) from Met Éireann's TRANSLATE project.

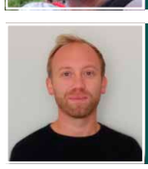
Life cycle development for most plant pests is highly dependent on the temperature of their environment. Temperature influences metabolic rate, and consequently, the ability of an organism to develop when food sources are available. The temperature requirements for a species to complete its life cycle can be determined from laboratory studies which assess the minimum and maximum temperatures at which an organism can develop. Combining this information with the accumulated temperature (calculated as growing degree days) needed to complete development allows the timing of a pest's life cycle to be predicted.

The PRAU provides risk assessment and scientific support for plant-health-related matters to risk managers in the DAFM plant health divisions. Part of the PRAU's role is to provide scientifically supported recommendations for surveillance of quarantine plant pests. Surveillance for EU and Irish quarantine plant pests is mandatory under EU plant health regulations which are transposed into Irish law as statutory instruments. Currently the DAFM plant health divisions are legally required to undertake surveillance for 262 different plant-health species/genera. This is a significant labour- and resource-intensive burden on DAFM plant health divisions and there is a drive for resource efficiency when conducting surveillance activities.

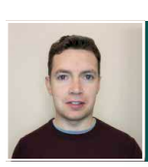
PRAU uses the IPEM tool to assess whether specific plant pests can establish in the Irish climate and to indicate when they may achieve certain life stages (e.g. larva or adult). From this, the PRAU can provide quantitative estimates for when inspectors should conduct visual surveillance in the field for quarantine plant pests. The IPEM tool has a selection of pre-modelled plant pests and a "User Defined" section, where users can enter parameters for a new pest's growing degree-day model. The IPEM tool can be used for modelling terrestrial organisms and is now publicly available at *www.pestmaps.ie.*



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AGRICULTURAL INSPECTOR, PEST RISK ANALYSIS UNIT,
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Andy Bourke
ASSISTANT AGRICULTURAL INSPECTOR, PEST RISK ANALYSIS UNIT,
Department of Agriculture, Food and Marine

Halyomorpha halys (HALYHA) - https://gd.eppo.int

20 years of *impact*



"The mission of the National Biodiversity Data Centre is 'to make data and information on Ireland's biodiversity more easily accessible in order to better understand and inform its protection and restoration'. The strides forward made in the past 20 years have laid the foundations for our overall vision of "an Ireland where biodiversity is understood, appreciated and valued, and decisions that impact on biodiversity are informed by evidence and knowledge."

- John McCarthy, Chairperson of the Board.

Here, we look at just some of our achievements over the past two decades:

We mobilise biodiversity data

We developed Biodiversity Maps, Ireland's biodiversity data and mapping portal, which provides free and easy access to biodiversity data and highlights sources of biodiversity data and datasets managed by partner organisations. It is intended as a resource for ecologists, researchers and decision-makers to improve the quality of decisions for conservation, and for citizen scientists and local communities to better understand the biodiversity in their locality.

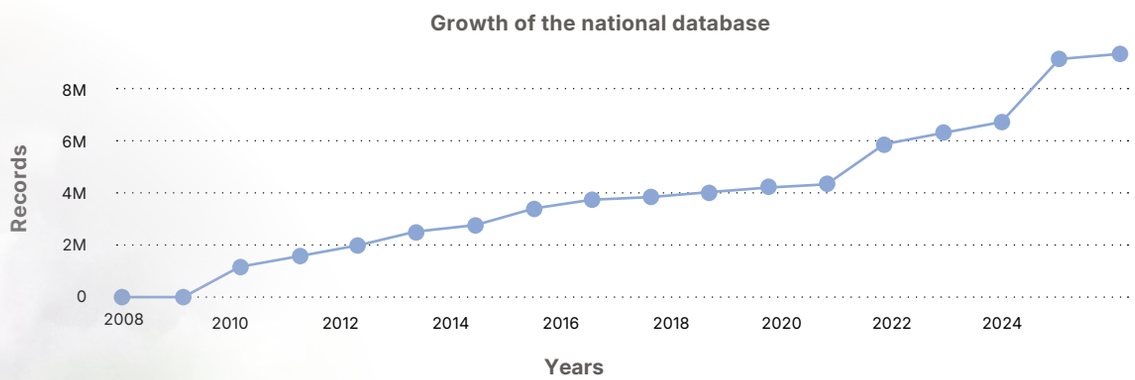
More than 9 million occurrence records of almost 20,000 species have been published on this national database, mobilising:

- 2 million records of protected species
- 1.8 million records of threatened species
- 100,000 records of invasive species

Some 214 datasets from 88 different partner organisations have been published.

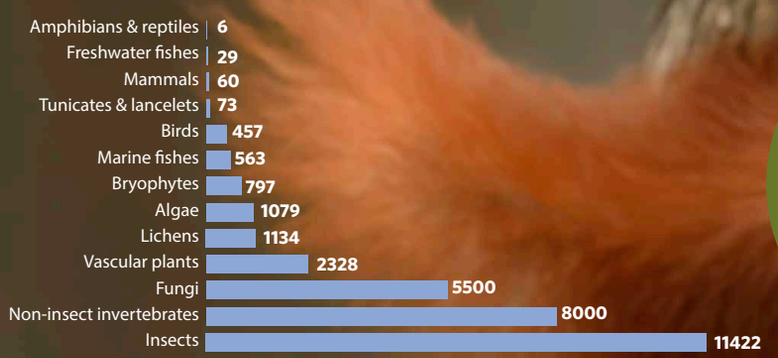
We manage relevé data to compile Ireland's National Vegetation Database and developed Ireland's Vegetation Classification System.

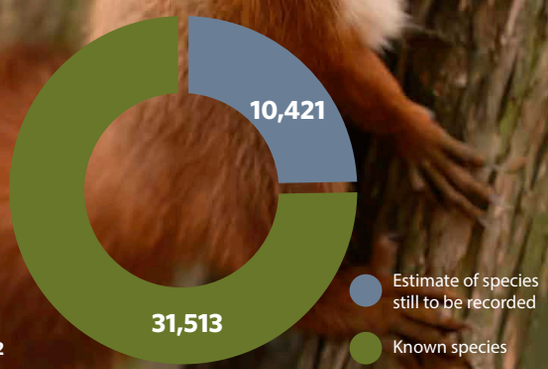
We manage the National Invasive Species Database, which contains more than 20,000 records of 183 invasive species from more than 7,000 sites across the country.



We build the knowledge base on Ireland's biodiversity

In 2010, we completed a State of Knowledge on Ireland's Biodiversity, updated 2025.







GBIF | Global Biodiversity Information Facility | Ireland's GBIF Node

The National Biodiversity Data Centre serves as Ireland's Node of the Global Biodiversity Information Facility (GBIF). All open data are published to GBIF's data portal ensuring that data about Ireland and from Irish publishers contribute to building knowledge of global biodiversity and these data are available as a resource for international research and for international biodiversity policy development.

We have published to GBIF:

- 5.1 million occurrence records
- 132 datasets
- Data about 132 different countries by Irish researchers

We develop ICT systems:

- Biodiversity Maps - Ireland's data and mapping portal
- Ireland's Citizen Science Portal
- ICT systems to map Actions for Pollinators and Actions on Invasive species
- Action Trackers to support implementation of Ireland's Fourth National Biodiversity Action Plan 2024-2030
- Asian hornet reporter app
- BioDataCapture recording app
- Actionforbiodiversity.ie website – Ireland's portal for Local and Community Biodiversity Action Plans
- National Sampling Framework



We monitor biodiversity

The National Biodiversity Data Centre manages a monitoring network of:

>279 transects

>1,962 point counts

>302 site surveys

>289 rare plant populations

- We manage national bumblebee and butterfly monitoring schemes.
- We contribute Irish data to the European Grassland Butterfly Index.
- The National Biodiversity Data Centre has published three hard-copy distribution Atlases.
- We developed National Biodiversity Indicators for Ireland.

We greatly improved knowledge of Ireland's coastal and marine biodiversity through our Explore Your Shore! citizen science programme. Explore Your Shore! has generated 36,782 records of 910 species from 2,703 sites, to improve our knowledge of marine biodiversity. We developed a Marine Biodiversity Citizen Science Strategy.

Irish Butterfly Monitoring Schemes

The Irish Butterfly Monitoring Scheme, established by the National Biodiversity Data Centre in 2008, is Ireland's longest running citizen science insect monitoring scheme. It tracks the population status of Ireland's widespread butterfly species based on a network of almost 150 transects surveyed by volunteer recorders. The Garden Butterfly Monitoring Scheme includes over 1,000 counts.

Rare Plant Monitoring Scheme

The Rare Plant Monitoring scheme was launched by the National Biodiversity Data Centre in 2017. Volunteer recorders survey almost 300 sites that contain rare or threatened plant populations each year. These annual counts provide early warning signs of threats and help improve the accuracy of future conservation assessments.

All-Ireland Bumblebee Monitoring Scheme

The All-Ireland Bumblebee Monitoring Scheme, established by the National Biodiversity Data Centre in 2012, is one of the first of its kind globally. It tracks Ireland's widespread bumblebee species at over 130 transects, and uses the status of the eight commonest species to generate a multi-species population index as a measure of the health of Ireland's bumblebee populations.

This scheme provides vital baseline data that is used to inform and assess the impact of the All-Ireland Pollinator Plan.

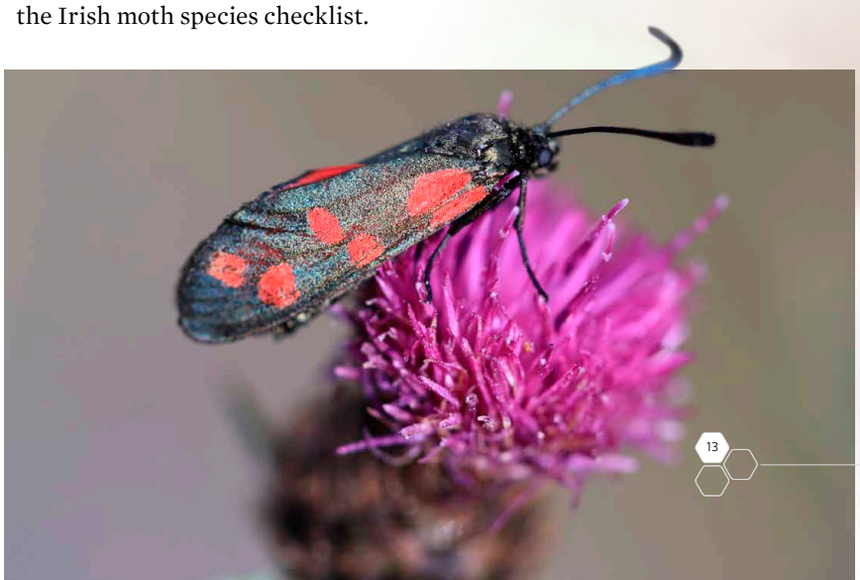


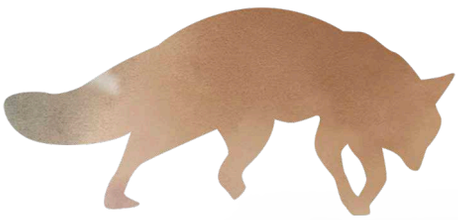
Dragonfly Ireland

Dragonfly Ireland 2019-2024 was an all-Ireland survey of dragonflies and damselflies. Over 170 were systematically monitored. The project goals included collecting records of Irish dragonflies and damselflies to produce a new Dragonfly Atlas, exploring the use of dragonflies and damselflies as bio-indicators of freshwater habitat quality, and engaging with the public to increase awareness of water quality and climate change.

Farmer Moth Monitoring Scheme

The Farmer Moth Monitoring Programme is a citizen science initiative that enables farmers to record moths on their own farms. Through this scheme, in 2025 alone, there were 23,059 individual moth sightings, of 371 different species, representing almost 25% of the Irish moth species checklist.





Published over **9 million** occurrence records



Published datasets from **88** organisations

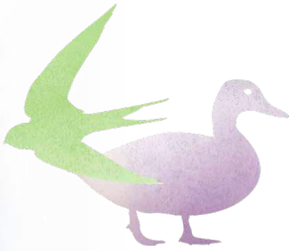


Manage a network of **7,000** monitoring activities annually



Published records of **20,000** species

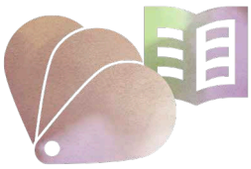




Ran **550** workshops, training **10,000** participants



Supported Citizen Scientists to generate **1.65 million** records of 15,000 species





Over 100 resources published and over **1 million** distributed

Managed the All-Ireland Pollinator Plan, delivering **15,000** evidence-based actions for pollinators



Manage the Bumblebee & Butterfly monitoring schemes

Manage Ireland's Early Warning System for Invasive Species





Published **5.1 million** records to the Global Biodiversity Information Facility

Delivering evidence-based action

We manage the All-Ireland Pollinator Plan. The All-Ireland Pollinator Plan has delivered 15,000 evidence-based actions for pollinators.

We collaborate with all 42 councils across the island of Ireland to support actions for pollinators.

We manage Ireland's Invasive Species information systems.

- We manage the Early Warning and Species Alerts System.
- We provide support for Rapid Response.
- We coordinate management interventions to mitigate the impact of Invasive Species of Union Concern.

Building partnerships

The National Biodiversity Data Centre has established and maintains successful partnerships with Government departments, statutory agencies, local authorities, academic institutions, non-governmental organisations, businesses, local communities, representative organisations, and international organisations.

Working internationally

Staff of the National Biodiversity Data Centre are members of:

- the IUCN Citizen Science Task Force
- the IUCN Species Survival Commission
- the European Citizen Science Association
- the European Pollinator Initiative
- the Governing Board of GBIF
- the European Butterfly Monitoring Network

Supporting policy implementation

The National Biodiversity Data Centre is responsible for 12 Actions included in Ireland's National Biodiversity Action Plan.

We support the National Parks and Wildlife Service (NPWS) to report under:

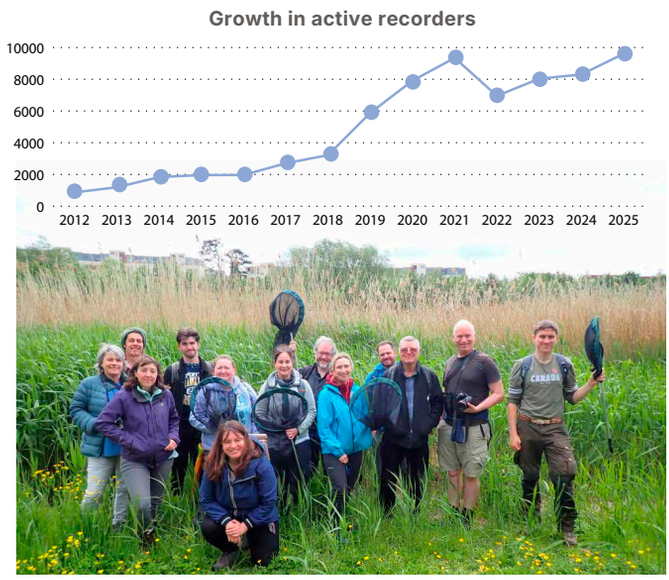
- Article 14 of the EU Invasive Species Regulation
- Article 10 of the Nature Restoration Plan
- Article 17 of the EU Habitats Directive

We support the DCEE Marine Strategy Framework Directive and the EU Pollinator Initiative and assisted the NPWS in drafting Ireland's 6th National Report to the Convention of Biological Diversity in 2019.

Promoting Citizen Science

We support a network of 30,000 recorders. We established the Distinguished Recorder Award to recognise remarkable contributions to Biological Recording. We also award Outstanding Achievement certificates.

We managed BioBlitz events at 30 different sites across the island of Ireland.



Promoting biodiversity

We have distributed approximately 1 million biodiversity publications. Many more people have accessed these free publications online.

We have published 30 issues of Biodiversity Ireland magazine, produced over 50 booklets on actions for biodiversity, as well as identification guides, swatches, posters and signage.

We have over 113,000 followers across our Social Media channels and more than 12,000 people subscribe to our digital newsletters.

Thank you

"Supporting like-minded people who have a passion for biodiversity has been one of the most rewarding parts of our work. We are extremely grateful to all of our partner organisations and funding bodies, to the NGOs who have shared their data, and all of the 30,000 volunteers who have submitted records. We look forward to many years' working with this growing network."

– Dr Liam Lysaght,
CEO, National Biodiversity Data Centre

Biodiversity Maps

The data and mapping portal Biodiversity Maps (*maps.biodiversityireland.ie*) provides access to data on Ireland's biodiversity. As of October 29th, it contains 9,282,984 records across 19,783 species in 214 datasets.

Some recently updated datasets include:

Dragonfly Records
885 new records

Swifts of Ireland
91 new records

Stoats of Ireland
31 new records

Ants of Ireland
5 new records

Wasps of Ireland
21 new records

ACE EIP Winter Farmland Bird Survey 2025/2026
New Dataset! 2,916 new records

Hoverflies (Syrphidae) of Ireland
137 new records

National Invasive Species Database
201 new records

Ladybirds of Ireland 2026
329 new records

Explore your Shore!
1,934 new records

Birds of Ireland
1,577 new records

Tachinidae of Ireland
New Dataset! 1,034 new records

There has been some great recording activity throughout 2026, with 153,688 records across 6,290 taxa submitted through Ireland's Citizen Science Portal by September. 10,000 recorders submitted records, across all 32 counties. Painted Lady and Hummingbird Hawk-moth had a particularly good season with both species in the Top-10 most recorded list for 2026.

All photos: CC BY-NC 4.0 on www.gbif.org



New Zealand Flatworm, *Arthurdendyus triangulatus*
First report: 1963
Designated: Invasive
Irish Status: Established

Invasive species

Non-native and invasive flatworms in Ireland

In recent times, we are seeing not just more flatworms being reported, but also an increase in the number of species recorded in Ireland. In 2016, when the first Catalogue of Ireland's Non-native Species was compiled, there were five species of non-native terrestrial flatworms recorded in the open environment in Ireland. Not included in the Catalogue at the time was the historic occurrences of *Bipalium kewense*, which was only known from hothouses in Dublin and Kildare around the turn of the 19th century, and subsequently from a hothouse in Belfast in 2003.

However, as part of the update of the Catalogue in 2026 (in-preparation), it is now confirmed that 11 terrestrial non-native flatworms have been recorded in Ireland. Some are classed as invasive with others not yet assessed.

Non-native terrestrial flatworms are thought to have been inadvertently brought into Ireland as contaminants of products and materials associated with the transport and movement of plants and their growing mediums. To help prevent further introductions and spread of these flatworms, it is important to implement some straightforward biosecurity measures. This could be checking potted plants or growing media for flatworms or eggs before you purchase or share them. Quarantining plants when brought home, for example by placing in a sealed clear plastic bag, can help detect if anything undesirable emerges.

To develop a better understanding on the distribution of these species, if you suspect you have seen any of the flatworms shown here, or indeed any flatworms at all, please do take a good clear photo and submit the sighting details to the National Biodiversity Data Centre at: *records.biodiversityireland.ie/record/others*



Australian flatworm,
Australoplana sanguinea
First report: 1974
Designated: Invasive
Irish Status: Established



Kontikia andersoni
First report: 1986
Designated: Invasive
Irish Status: Established



Blue-spotted land planarian,
Marionfyfea adventor
Designated: Not assessed
Irish Status: Occasional



Two-tone planarian,
Caenoplana variegata
First report: 2018
Designated: Not assessed
Irish Status: Occasional



Stripe-bellied flatworm,
Parakontikia ventrolineata
First report: 1999
Designated: Invasive
Irish Status: Established



Obama flatworm,
Obama nungara
First report: 2020
Designated: Invasive
Irish Status: Occasional



Blue garden flatworm,
Caenoplana coerulea
First report: 2026
Designated: Not assessed
Irish Status: Occasional



Shovel-headed flatworm,
Bipalium kewense
First report: 1893
Designated: Invasive
Irish Status: Indoors only



Artioposthia exulans
First report: 2020
Designated: Not assessed
Irish Status: Uncertain



Colette O'Flynn
INVASIVE SPECIES OFFICER
National Biodiversity Data Centre

Thanks to Dr. Roy Anderson for reviewing the checklist of non-native flatworms. Non-native freshwater flatworm species are also in the Catalogue but not presented here.

Bats

As is usual for Bat Conservation Ireland, the summer was hectic! May kicked off with lots of Biodiversity Week walks and talks around the country and a stand at Glenveagh National Park for the week. In May, we also went to Dublin Zoo's Native Species Weekend and Bloom in the Phoenix Park where we met lots of lovely animal, gardening and wildlife enthusiasts.

At the time of writing, data is still coming in from all the National Bat Monitoring Programme surveys that citizen scientists carried out along rivers, roads, and in woodlands and roosts across Ireland during the summer months. This year, over 200 brand new surveyors registered to take part in the All-Ireland Daubenton's Bat Waterways Surveys alone, which really shows the phenomenal interest there is in our nocturnal wildlife. We are so grateful to all those taking part, and to all our funders including local authorities, NPWS and NIEA.


Leisler's Bat © Niamh Roche

This summer we were really pleased to roll out a new curriculum of training for amateur bat enthusiasts and professional bat workers (see *training.batconservationireland.org*). To get started with Irish bats, our free Introduction to Bats and Using Bat Detectors course is available for anyone to complete at their own pace on the training platform. Next up, our new in-person Novice Bat Recorder Course is aimed at those who want to start identifying and recording bats on a hobby/amateur basis and includes two evenings of training. The first evening includes talks and fieldwork and a second evening offers further practice identifying bats in the field using tuneable detectors.

For individuals considering developing their bat skills and knowledge as part of an ecology career, we have developed three new courses. Beginner Bat Surveyor Part 1 is a self-paced online course that can be carried out at any time of year on our training platform. It includes presentations and live-action 'how-to' videos to guide new surveyors in bat survey design and techniques. Beginner Bat Surveyor Part 2 is a follow-on course held in person and includes talks and field work to find potential roost features, watch bat emergence and identify bats present. The third course, Intermediate Bat Surveyor, also takes place in person and offers more detailed information on important bat topics like onshore renewables, assessing impacts, designing mitigation and post-development monitoring. This course includes fieldwork and an assignment. We will be setting 2027 dates for Novice Bat Recorder, Beginner Part 2 and Intermediate field courses early in the new year.

As a member of the Environment Pillar, we submitted feedback to the government on the draft Irish Nature Restoration Plan during the summer. This plan has now been submitted to the European Commission for review – here's hoping sufficient funding is ring-fenced, and that we see strong political drive to roll out this important regulation in the coming years!


Opening a harp trap © Tina Aughney

Bat Conservation Ireland attended the Leinster Artificial Light at Night conference in June which was organised by local authority Biodiversity Officers. This informative day aimed to address the growing problem of light pollution caused at night, and brought planners, engineers and other local authority and agency staff together to discuss ways to reduce it.

The Bat Bus Tour in Donegal was a first for BCIreland. This fun event brought participants to An Grianán and Boom Hall to detect bats. It was led by Karen Healy for members of Moville Men's Shed. Seven bat species were recorded during the tour and everyone thoroughly enjoyed the experience.

The Species Recovery Plan led by the RSPB with many NGO partners, including BCIreland, is gathering pace in Northern Ireland with plans for imminent rollout of the development phase. Among the plans are pilot 'Pillar Communities' that will help to develop best practice for bats in local towns and villages, and organise bioblitzes and biodiversity festivals.

Our 'Bat Champions' schools project will also soon be piloted by a small number of primary schools. This is a results-based scheme for schools to help them conserve bats in their own grounds. As a reward, schools that become Bat Champions will be paid a furry visit by our (soon-to-be-finished) new mascot Ialtóg!

For the coming winter, we are planning some online 'Have a Natterer' webinars to keep up to date with the latest research and batty news. Make sure to keep an eye on our events page *batconservationireland.org/events* and socials for details of upcoming talks and events.



Dr Niamh Roche
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Asplenium viride, Mullaghanatin, Co. Kerry. © Rory Hodd



Oreopteris limbosperma © Dean McCullough



Hay-scented Buckler-fern © Bridget Keehan

Vascular Plants

The summer of 2026 was sunny and dry, the hottest Irish summer on record - excellent for flowering plants and fruit, but surprisingly, BSBI's intrepid recorders have also submitted a wide array of impressive fern records, including some not previously seen for over a century.

In Louth, two ferns were found that hadn't been seen in the county since Praeger visited in the 1890s. In July, at Ferryhill/Cornamucklagh in the Cooley Mountains, Dean MacCullough discovered Lemon-scented Fern, *Oreopteris limbosperma,* growing in a heathy grassland; while not far away, Ciarán Flynn found Hay-scented Buckler-fern, *Dryopteris aemula,* in a wooded ravine.

Sligo/Leitrim recorder Emmi Virkki led two expeditions up Benbulben in late May, to see its lovely, well-known arctic-alpine rarities, and found the beautiful, rare Holly Fern, *Polystichum lonchitis*, in a shaded gully, not recorded on the mountain for over a decade. The diminutive Green Spleenwort, *Aspenium viride*, an calcicolous evergreen fern of moist, sheltered rock crevices, is quite frequent on Benbulben and was also recorded this summer by Rory Hodd, while leading a group up Mullaghanattin Peak in Kerry, and John Conaghan, who visited Muckanaght in the Twelve Bens Mountain range with a group from Galway – sites that support an exciting array of Arctic-alpine flowering plants, which were the main focus of the expeditions. At the Connemara site, the group also saw the delicate, limestone-loving Brittle Bladder-Fern, *Cystopteris fragilis*, and Wilson's Filmy-fern, *Hymenophyllum wilsonii*, a tiny, diaphanous fern of wet rocks, for which Ireland holds a significant proportion of the European population.



Hymenophyllum tunbrigense © Bridget Keehan

A new county site for Common Adder's-tongue, *Ophioglossum vulgatum*, was recorded this year, along with a variety of orchid species, in a beautiful north Leitrim meadow, which is being managed by the owner to benefit Marsh Fritillary butterfly.



Ophioglossum azoricum © Timothy Ó Ceallaigh

It isn't immediately apparent that Adder's-tongue is a fern, with its broad, oval, leaf-like blade enclosing a pointed reproductive spike (the snake's tongue!). Meanwhile, three new populations of the similar, but tinier, Small Adder's-tongue, *Ophioglossum azoricum,* were recorded this year by ecologists in Connemara, Co. Galway. Two of the populations of this mainly coastal species, at Roundstone and Gorumna, were found in coastal grassland by Rudraksh Gupta and Timothy Ó Ceallaigh, growing with species such as Spring Sedge, *Carex caryophyllea*, and Eyebright, *Euphrasia* spp. The third, unusually, was in lakeshore habitat at Loch Ghleann Mhac Muirinn, with species like Shoreweed, *Littorella uniflora*, Lesser Spearwort, *Ranunculus flammula*, and Marsh Pennywort, *Hydrocotyle vulgaris*.

Citizen science platforms like iRecord and iNaturalist have also revealed some exciting fern discoveries this year. For example, BSBI's Co, Down recorder Graham Day spotted Matthew Flood's record of Tunbridge Filmy-fern, *Hymenophyllum tunbrigense*, at Slieve Binian – which proved to be the first ever attributed record for Co. Down. With Ruan McCready, Matthew also re-found Parsley Fern, *Cryptogramma crispa*, from in between Slieve Donard and Slieve Commedagh - last recorded in 1985. Meanwhile on Slieve Binian North Tor, Zoe de Surville recorded Beech Fern, *Phegopteris connectilis*, on iNaturalist: the first record of the species from that summit since Praeger saw it in 1887!

These finds really do highlight what a wealth of fascinating fern species Ireland holds – even outside our lush Atlantic rainforests! – and demonstrate that even well-recorded areas may still be full of botanical surprises.



Bridget Keehan
BOTANICAL SOCIETY OF BRITAIN & IRELAND OFFICER
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The Painted Lady moved northward in Europe in huge numbers in the summer of 2026.



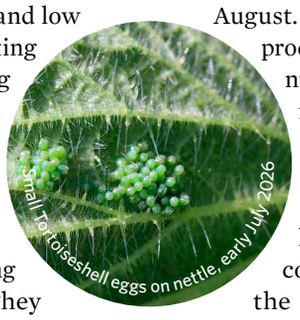
Small Tortoiseshell

Butterflies

2026: The Year of the Migrant

In this article, I look at some mechanisms used by butterflies to deal with challenging temperatures, aridity, and food scarcity.

As I write in late August 2026, temperatures across southern Europe are in the mid-30s^{0}C and above. In June and July, temperatures frequently exceeded 40 degrees. Prolonged high temperatures and low precipitation reduce soil moisture, resulting in desiccated vegetation and depleting nectar and larval foodplant resources.



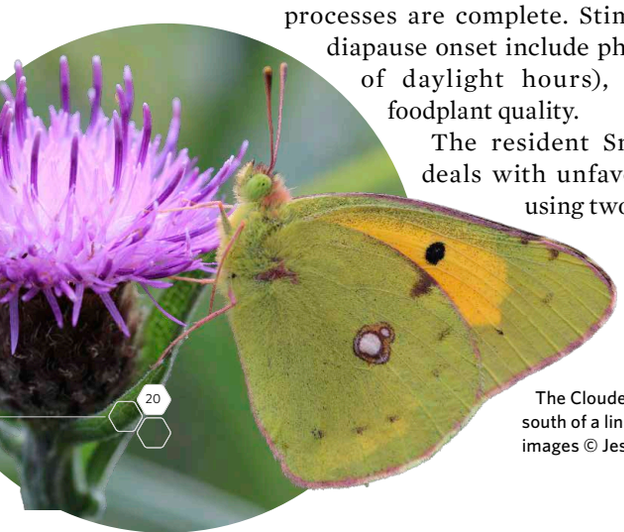
Small Tortoiseshell eggs on nettle, early July 2026

Some butterflies cope using aestivation, a dormancy used to sustain a species challenged by a lack of food and other extreme conditions. Animals that aestivate become inactive and stop feeding in response to warm temperatures. They retreat to cool places, such as woods and caves. In some species, aestivation is initiated by intense heat and terminated by the return of cooler conditions.

In others, aestivation is activated by diapause, an endogenously (arising within the insect) regulated dormancy that provides a means to survive seasons of adverse environmental conditions, and allows populations to synchronise periods of active development and reproduction with seasons of optimal resource availability. It is genetically determined and hormonally mediated. It is characterised by low metabolic activity, low growth, and altered or reduced behavioural activity.

Once diapause is initiated, metabolic activity is reduced even if favourable conditions prevail. Diapause is terminated only when the chemical processes are complete. Stimuli that influence diapause onset include photoperiod (number of daylight hours), temperature and foodplant quality.

The resident Small Tortoiseshell deals with unfavourable conditions using two methods.



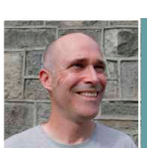
The Clouded Yellow was most numerous south of a line from Limerick to Dublin. All images © Jesmond Harding

One is what we call hibernation, a period of quiescence initiated by the onset of unfavourable conditions, which ends when suitable weather returns. Thus, we will often see Small Tortoiseshells flying on warm days in January when, roused by the heat, the butterfly 'thinks' spring has arrived.

The resident Small Tortoiseshell's reproduction is influenced by diapause. Declining daylight signals the onset of conditions unfavourable for reproduction, as do declining or perhaps elevated temperatures and low foodplant quality. Unlike in 2025, I found no Small Tortoiseshell caterpillars in late July or August. There is sufficient daylight at that time to produce another generation, but nettles lacked nutritional quality. Like other observers, I found adult Small Tortoiseshells entering buildings in mid-July, likely a response to the scarcity of nutritious nettles.

Some species have no 'rest phase' in their life cycle. Their response to unfavourable conditions is to escape. Summer 2026 was the summer of the migrant. Painted Lady, Red Admiral and the most sought-after migrant, the delightful Clouded Yellow, all highly mobile butterflies, appeared in impressive numbers. The reasons were most likely the rising aridity and elevated temperatures desiccating foodplants on the continent and southerly winds to speed them northward. When checked on 27 August, the National Biodiversity Data Centre website showed the three migrants made up over 25% of all butterflies reported there.

Reverse (southward) migration has been confirmed for Painted Lady and Red Admiral. It is estimated that 11 million Painted Ladies reached the British Isles in May/June 2009, and 21 million left that autumn. Our flower-rich places fuel this reverse migration. Keep those nectar-bearing plants blooming!
For more, see *butterflyconservation.ie*



Jesmond Harding
FOUNDER MEMBER AND CONSERVATION OFFICER
Butterfly Conservation Ireland

Jesmond's book, ***The Irish Butterfly Book***, is available in book shops and by email: jesmondmharding@gmail.com



Cliff Plume © Christian Osthoff





Bedellia leaf mines on bindweed



Small Mottled Willow © Stephen Cotter

Moths

In Ireland, 2026 will go down as one of the best ever years for immigrant moths, with record numbers of various species reaching our shores. So, what defines a migrant moth? Migrant birds are easier to define in that they are species that navigate from one part of the world to another, such as swallows migrating to Ireland from Africa and back. But most moths don't navigate because they don't actually know where they are! They simply orientate using features such as hedges once they are here. They arrive on weather systems that bring air currents from areas such as southern and eastern Europe, North Africa and the Atlantic islands. Sometimes species can even get dragged across the Atlantic from North America.

As ever, there are exceptions. Although not a moth (but still a lepidopteran), the Monarch or Milkweed Butterly, Danaus plexippus, undertakes a return migration from North America as far as Mexico, covering thousands of miles to a very specific location. In Australia, the Bogong moth, *Agrotis infusa*, also undertakes a structured return migration of hundreds of kilometres. But for us, the wonderful species that arrive here do so solely because of the weather conditions. The long, hot summer brought a continuous flow of hot southerly air loaded with immigrant moths. Two species were especially noteworthy. There were unprecedented numbers of the spectacular Striped Hawk-moth, *Hyles livornica*, which graced many a moth trap, but especially those situated in coastal localities. The Small Mottled Willow, *Spodoptera exigua*, is normally a scarce migrant with around 300 records of over 500 individuals up to 2024. This year, double-figure numbers, night after night, were commonplace, with the species turning up right across the country. It is likely that many of these were bred here or in Britain from earlier arrivals. This species has a worldwide distribution thanks to immigration and introduction. In hotter climes, it can be a major pest of a bewildering array of crops from asparagus to cannabis! Perhaps something to consider as our climate warms.

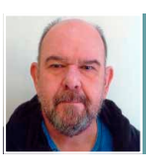


Striped Hawk Moth
© Louise Garcia

At the time of writing, four new species have been recorded in Ireland in 2026: three macro-moths, Pretty Chalk Carpet, *Melanthia procellata*; Lyme Grass, Longalatedes elymi; and Least Carpet, Idaea rusticata; and the micro-moth, Cliff Plume, *Agdistis meridionalis*. The first two were very unexpected, whereas the Least Carpet less so, as it has been expanding its range in Britain. It is likely that the Lyme Grass has a previously undetected colony in the Portrane area of Dublin where the two specimens were found. It inhabits the fore dunes of coastal sand-dune systems and only feeds on its namesake plant, lyme grass.

The discovery of a breeding colony of Cliff Plume in Wicklow was entirely down to the detective work of Christian Osthoff, checking out the patches of rock sea lavender and initially discovering the plume moth's larvae. Checking the site again revealed the adult moths. This moth was previously thought to be restricted to a few sites in south-west Britain, so Wicklow was a great match in terms of its distribution.

Finally, I have to mention the unprecedented explosion in Ireland of the leaf-mining moth *Bedellia somnulentella*. There were only 32 records up to 2023, but this year, mines on bindweed have been found all over the country. This year's explosion was first noticed in northern England where it was always very scarce. It transpires that it is having a boom year everywhere. I have been personally looking for the mines of this moth for a decade without success. This year, it is even in my garden. Why? Well, to be honest, we have no idea. If it follows the pattern of a recorded boom in Cheshire many years ago, then next year it will most likely vanish back into obscurity.



Dave Allen
MOTHSIRELAND
www.mothsireland.com

Birds

Autumn is a time of transition, leaves colouring and falling, changeable weather, and Robins in full song as they establish their winter territories. Otherwise, it is a quiet time in the bird world; most of the summer migrants have gone but the winter visitors are not here either. Patience! The nocturnal calls of the Redwing will arrive soon.

A remarkable summer is behind us, the longest hot and dry spell for a long time with many meteorological records broken. The insect eaters seemed happy enough (very anthropomorphic, I know), but the Blackbirds and thrushes probably had a hard time (literally) and earthworms were probably not on their menu. Out on the coast, different rules apply, although sea temperature was probably higher than average, most seabirds seemed to find enough food to raise young. BirdWatch Ireland has been involved in an exciting new 'North-South' initiative funded by the PeacePlus 'Acclimatise' project tracking seabirds in the northwest. We tagged Kittiwakes at Muckross Head, near Killybegs, and Bundoran in the hope of discovering how they use the greater Donegal Bay MIBA (Marine Important Bird Area). On the east coast, Kittiwakes on Rockabill experienced a total breeding failure. They started nesting rather late and eggs were picked off by large gulls soon after they were laid. Breeding numbers are still depressed after the 2023 bird flu outbreak so another poor year will not help this colony recover, and Kittiwakes remain on the Irish Red List. That said, Rockabill terns set a new record. Our June census revealed 1,840 pairs of Roseate Tern, beating the previous high of 1,832 in 2022 (pre-bird flu). At Lady's Island Lake, Roseates also increased significantly, with 367 primary nests (pairs), representing an increase of 36% since 2025.

The breeding waders on BirdWatch Ireland's Annagh Marsh (Mayo) made national media headlines: 67 pairs of Lapwing (>10% of the national population) reared 143 fledglings and the breeding wader community includes several pairs of Red-necked Phalarope, Redshank and Snipe too. Congratulations to Reserve Manager Dave Suddaby, for his sterling work over the years to really put this reserve on the map.



Manx Shearwater (both © Steve Newton)



Over the last few years, we have been monitoring burrow-nesters on Lambay Island, Dublin. We use tape-playback to locate active Manx Shearwater burrows and have identified one small 'colony' of maybe 30-50 pairs. At the end of June, we had a little spare time and used it to mist-net and experience these birds in the hand during the night. It was an extraordinary experience to ring the nocturnal shearwaters while planes flew in and out of Dublin Airport and the Coastguard helicopter hovered around, at 1am in the morning. Presumably, the latter was a training exercise and not an actual rescue!

Something else in the avian headlines over the last few months has been the 'great debate' on feeding garden birds. We are well aware of the decline in Greenfinches that has been linked to the disease trichomonosis and poor bird-feeder hygiene. Recent research and a review of long-term datasets in Britain have led to new recommendations from organisations such as the BTO and RSPB to the effect that garden bird feeding should be restricted to winter and spring. With the lack of equivalent work in Ireland, should we follow suit here? For the moment, BirdWatch Ireland's position is that feeding peanuts and sunflower seed should be limited to the period 1 November to 30 April.



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Lapwing © Colm Fitzpatrick



Species-rich grassland at Annagh Marsh Reserve © Dave Suddaby



Nomada argentata (male) © Steven Falk

Silver-sided Nomad Bee, *Nomada argentata* found © Joshua Clarke

Bees

Bee records were down 13% in 2025, despite an improvement in the weather compared with the previous year. 2026 started very positively, but the prolonged periods of dry weather seem to have resulted in reduced forage sources in the second half of the summer, particularly in the south. Q3 records for 2026 are still being submitted, but overall sightings this year also appear to be down.

Across 2025, we received validated records of 68 wild bee species (18 bumblebees and 50 solitary bees). We are very grateful to all those volunteers who are contributing this valuable data. The most exciting find was the first Irish record of the Northern Sallow Mining Bee (*Andrena ruficrus*). It was found by the National Biodiversity Data Centre's Insect Officer, Owen Beckett, at Binevenagh Forest in Co. Derry in 2024, with the validated record submitted in 2025.

In August 2026, All-Ireland Pollinator Plan Rare Species Pollinator Officer, Joshua Clarke, rediscovered the Critically Endangered Silver-sided Nomad Bee (Nomada argentata) in Co. Offaly. *Nomada argentata* had not been seen in Ireland for 26 years prior to this new record, with just seven confirmed records overall from counties Galway, Laois, and Carlow. This new record makes it the eighth record, in a new county, and a new site for the species.

Across 2026, we've continued to receive small numbers of sightings of our rarest bumblebees – Great Yellow Bumblebee (*Bombus distinguendus*), Red-shanked Carder Bee (*Bombus ruderarius*), Shrill Carder Bee (*Bombus sylvarum*). In contrast, the Tree Bumblebee (*Bombus hypnorum*), first recorded in Ireland in 2017, is continuing its expansion. As of the end of June 2026, it has been recorded from 29 counties.

Both the Tawny Mining Bee (*Andrena fulva*; rediscovered in 2012) and the Wool Carder Bee (*Anthidium manicatum*; first recorded in 2015) appear to be slow to move outside of the southeast. The Hairy-footed Flower Bee (*Anthophora plumipes*; first recorded in 2022) was found again this spring in the Harold's Cross area in Dublin, but aside from one 2024 sighting in Co. Kildare, it doesn't appear to have extended its range yet. As of the end of 2025, the Ivy Bee (*Colletes hederae*; first recorded in 2021) had not expanded further, with the most northerly record remaining from Brittas Bay in Co. Wicklow, and the most westerly from St Mullins in Co. Carlow. However, new sightings have already been reported in 2026, from New Ross in Co. Wexford, and from Sixmilebridge, Co. Clare. It will be interesting to see how far it spreads this autumn.

Our wild bees need more food and safe places to nest in the landscape. We are delighted that the new All-Ireland Pollinator Plan for 2026-2030 has been launched. Given that a solitary bee won't fly more than about 200 metres to find food, the new phase has a wildly ambitious vision of pockets of nature every 200 metres in our landscape, providing food, shelter, and safety. We ask everyone to get behind the Plan and help make this a reality. See *pollinators.ie* to find out how you can help.



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Explore Your Shore!


The nudibranch *Gargamella rosi* © Valerie Hickey

There is something addictive about exploring the seashore. Turning over a rock at low tide to reveal a myriad of hidden life forms, a new seaweed identified, or an unfamiliar shell washed up on the beach can suddenly become a small scientific discovery. That is the idea at the heart of Explore Your Shore!, Ireland's marine citizen science project that invites everyone to take a closer look at the rich biodiversity around our coast.

An army of volunteer recorders around Ireland continue to explore beaches, rock pools and coastal habitats, recording the species they encounter and sharing records and photographs with the project. These observations may seem small individually, but together they are building an increasingly valuable picture of Ireland's marine biodiversity. In fact, in July, the National Biodiversity Data Centre shared 1.2 million marine and coastal species records, including Explore Your Shore! records, to the Marine Institute for an Ecological Sensitivity Analysis for the designation of new Marine Protected Areas in Irish Atlantic waters.

Since our last update, we have run our annual Seashore Splash! events for Biodiversity Week and Heritage Week. For many participants, this was an excuse to get outdoors, explore somewhere familiar with fresh eyes and discover what had been living there all along. Congratulations to Wexford, who topped the scoreboard for both events!

Together with our Explore Your Shore! Hubs in Kerry (SeaSynergy), Galway (Atlantaquaria) and Donegal (The Sea Collective), we have been busy out around the coast running training events from Malin Head to Derrynane and from Louisburgh to Dundalk. We love engaging with enthusiastic marine recorders the length and breadth of Ireland and helping others to share our passion for discovering Ireland's marine biodiversity. In June, we were in Fenit, Co. Kerry, for the National Biodiversity Data Centre's 20th Anniversary recorders' event, and that was closely followed with a trip to Gortahork in Donegal for our first-ever Explore Your Shore! recorders' event.

Out on the shore, the discoveries keep coming. In the past few months alone, we have validated a number of exciting marine records, including the exotic (and recently arrived) nudibranch *Gargamella rosi* and Atlantic Wreckfish from Cork, and Striped Red Mullet from Galway. For anyone who enjoys finding something unexpected on a coastal walk, it is a fascinating reminder that there is always something new to discover.


Striped Red Mullet, *Mullus surmuletus* © Nicolas Chopin

The scale of the project is impressive too. To date, we have accumulated 36,782 validated records of 910 species from 2,703 sites around the coast. Behind every one of those numbers is a person who took the time to stop, look, photograph and record what they found, and we thank everyone who has taken the time to contribute.

What makes Explore Your Shore! particularly appealing is that you don't have to be a marine biologist to contribute. Curiosity is enough to get started. A beach you have visited dozens of times can become a place of discovery, and that photograph of an unfamiliar creature or seaweed can become part of a much bigger scientific picture. As autumn arrives, the opportunities to explore continue, with the added excitement of winter storms washing ashore species from deeper waters and from further afield.

If YOU want to take part in Explore Your Shore!, a great way to start is by completing our FREE online training course, which will show you how to survey and record marine species, and how to identify common intertidal seaweeds, fish and invertebrates. Full details are available at *www.exploreyourshore.ie*

epa Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil



Dave Wall
MARINE BIODIVERSITY PROGRAMME MANAGER
National Biodiversity Data Centre

Atlantic Wreckfish *Polyprion americanus* © Cornelia Krausz



Participants at the Explore Your Shore recorders' event in Donegal in July



Explore Your Shore workshop with the East Coast Kayak Club in Howth in May.



The Sea Collective Explore Your Shore event on Gola Island in September.



An Explore Your Shore workshop with BannerGleo in Clare in June.



Helping Climate Action Louisburgh explore their shore in Co. Mayo in August.

"Behind every one of those numbers is a person who took the time to stop, look, photograph and record what they found, and we thank everyone who has taken the time to contribute."

Survey Focus: The Great Rocky Shore Bioblitz

How? Record marine species found on Irish beaches, as the remains of species cast up by the tide can be a really useful indicator of what is living beneath the adjacent waves.

Why should I get involved? Your records will help us to map the distribution of marine species around the Irish coastline, and to find out what species occur at different times of year.

What is the goal of the project? To monitor changes in the distribution and occurrence of marine species linked to climate change and water quality.

Who can take part? Anyone visiting an Irish beach, whether you visit once or walk your beach on a regular basis.

What are the benefits? Learn how to recognise and record Irish coastal and intertidal species. Join a growing team of citizen scientists helping to monitor Ireland's coastal biodiversity. Use our Facebook Page for help with identification and for updates on Explore Your Shore!, and contribute to our knowledge of Ireland's marine biodiversity.

What happens to your records? All records submitted are checked by an expert to see that the species has been correctly identified and that the position information is correct. The validated record is then uploaded to the Explore Your Shore! dataset on Biodiversity Maps as Open Access data, which anyone can download. Validated records are also shared to the Global Biodiversity Information Facility (GBIF) and the European Ocean Biodiversity Information System (EURObis).

Find out more at: *https://exploreyourshore.ie/surveys/the-big-beach-biodiversity-survey/*



Cetaceans, turtles and Basking Sharks

During the period 1 April to 30 September 2026, the Irish Whale and Dolphin Group (IWDG) validated 2,009 cetacean and Basking Shark sighting records, a 15% increase on the same period in 2025. Our busiest month was May, with 464 records, which most likely reflects the fact that May is also peak Basking Shark season. With the shark season all but run, the year tally of 260 sightings makes 2026 our second busiest year for *Cetorhinus maximus*. While the increase in reporting may be due to the soft launch of the IWDG's new web-based reporting App, it is also impossible to discount the weather effect, as long periods of high pressure and multiple heatwaves during the summer must surely have increased observer effort.

There was a good mix of the usual inshore species as well as some sightings of deep-diving specialists in offshore waters, such as Long-finned Pilot Whales and Sperm Whale off the Porcupine Seabight. IWDG recorded a total of 12 species, including Basking Shark and Leatherback Turtle, the planet's second-largest shark and marine reptile respectively.

the year tally of 260 sightings makes 2026 our second busiest year for Basking Shark

Ranking all sightings in order of frequency, in first place is the coastal Bottlenose Dolphin, with 444 sightings; followed by the pelagic Common Dolphin (414); our smallest rorqual, the Minke whale (332); our smallest cetacean, the Harbour Porpoise (289); Basking Shark (260); Humpback Whale (56); Risso's Dolphin (27): Fin Whale (20); Pilot Whale (6), Killer Whale (5) and our largest toothed whale, or odontocete, the deep-diving Sperm Whale (3).

For several reasons, it will never be possible for all sightings to be confirmed to species level, but during this reporting period, 152 records (7.5%) were allocated to a non-species category. Historically, this figure ranged between 11-13%, suggesting that the new feature in the IWDG's reporting app, which enables recorders to easily attach video, is improving our ability to determine species on more challenging records.

Humpback Whales, after a slow start, did eventually appear and once again the data demonstrates their clear range shift north, with 52% of sightings coming from the Donegal Bay area. Of the 13 Humpbacks that were photo-identified in Irish and adjacent waters, nine (70%) were in Donegal Bay and most of these were between July and August. Four of these individuals were documented later in September in Dingle Bay, having returned to their former feeding area. Each of the 13 Humpbacks photo-identified so far this season was known to the IWDG from previous years, opening the possibility that the Irish Humpback Whale Catalogue, curated by the IWDG, may be close to identifying the entire population of Humpbacks visiting Irish waters.

The Minke Whale is our most widespread whale species, and again the largest feeding aggregations would always have been recorded in the west Cork and Kerry hotspots. We note with interest that this season's highest 'best estimate' was of approximately 20 Minkes off Rathlin Island, Co. Antrim, on 14 July - further evidence that it is not only Humpbacks that are on the move.



Gervais' Beaked Whale, stranded at Liscannor Co. Clare, 10 May 2026
© Francis Bermingham

Strandings

From 1 April to 25 September 2026, the IWDG Stranding Scheme validated a total of 200 records of stranded cetaceans and sea turtles on the island of Ireland (n=199 cetaceans, n=1 Loggerhead Turtle). This represents a 12% increase compared to this time period last year (n=169 cetaceans, n=9 sea turtles).

One of the most notable stranding events during this period was that of a female beaked whale found on 10 May at Kilmacrehy Beach in Liscannor, Co. Clare. As some species of beaked whale look quite similar to each other, their dentition can be examined in order to confirm species. Most species have a single tooth on each side of the lower jaw, which normally erupts only in males, as they are thought to be used for fighting other males rather than for feeding. In females, the teeth remain embedded in the gums and are non-functional. As a result, identifying this female in the field proved challenging. Our team contacted colleague and beaked whale expert Wojtek Bachara (RIP Sept. 2026), who confirmed that the animal was a Gervais' Beaked Whale – a species rarely recorded in Irish waters. Prior to this event, Gervais' Beaked Whales had been recorded in Ireland only twice, following strandings in Co. Sligo in 1989 and Co. Mayo in 2011.

As the IWDG Headquarters is located just 44km from the stranding site, the IWDG team was able to mobilise quickly in order to conduct a post-mortem examination that same day. The individual was confirmed to be a 4.2 m female, pregnant with a near-term foetus measuring 194 cm. The preliminary cause of death was attributed to live stranding, likely associated with complications during birth. A comprehensive suite of samples and organs were collected for further analysis. Samples were sent to the Regional Veterinary Laboratory in Cork for histological examination, while the stomach and intestines were retained to provide a rare insight into the species' diet.

Given the rarity of the animal, its excellent condition and advanced reproductive status, the foetus was transported to University College Dublin for a CT scan. The skeleton of the adult was recovered by the IWDG and will be donated to the National Museum of Ireland - Natural History (NHM).

The animal was examined under the IWDG's Deep Diving and Rare Species Investigation Programme (DDRIP), funded by the National Parks and Wildlife Service (NPWS), with support from the IWDG's volunteer veterinary network.

Please report all whale, dolphin and porpoise strandings - alive or dead - to the IWDG. With support from the NPWS, the IWDG maintains Ireland's official database of stranded cetaceans and sea turtles. This is one of the longest-running stranding schemes in Europe, which allows us to monitor and highlight any unusual stranding events or trends among cetaceans and sea turtles.



The IWDG wishes to acknowledge the passing of our colleague, Wojtek Bachara, who over many years provided invaluable assistance with the identification of beaked whales. His contribution to our work is remembered with gratitude, and he will be greatly missed.



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20 years of
biodiversity publishing













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An Chomhairle Oidhreachta The Heritage Council